

Amendments to the Abstract:

Please amend the Abstract as follows:

~~Said method and corresponding device operate on a rotor, on which a substance, emitting quanta of light, is arranged at least one point, a radiation source, by means of which radiation may be emitted onto the rotating vane and the substance arranged thereon, a sensor, by means of which the light quanta emitted by the substance may be detected and an analytical circuit, by means of which the signal from the sensor may be analysed to determine the vibrational behaviour of the vane.~~

A method for determining oscillation of a rotating blade disc of a turbomachine is provided. The method utilizes the steps including, arranging a substance that emits a light quanta when excited by an external excitation source to emit the light quanta, exciting the light emitting substance by the external excitation source to emit the light quanta, sensing the emitted light quanta by a light sensor, and evaluating a signal from the sensor to determine the oscillation behavior of the blade disc. A corresponding apparatus is also provided.